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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,010

03/14/2005

Katsuhiko Kamimura

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EXAMINER

FIORITO, JAMES

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,010

Applicant(s)

KAMIMURA ET AL.

Examiner

James A. Fiorito

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/05, 6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-10 are rejected under 35 U.S.C. 102(b as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matyasi US 4477427.

Matyasi teaches a process of making alpha alumina. Alumina is mixed with boric acid aluminum chloride and calcium salt (Column 3 Lines 45-56). The mixture is then calcined at 1200-1350 degrees C (Column 4 Line 31).

Claims 1-3, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matyasi US 4477427 as applied to claims 4-10 above, and further in view of EP 0680929.

Matyasi does not expressly teach that the alpha alumina is pulverized or milled.

EP '929 teaches a process of making alpha alumina wherein the alumina is milled, but the method of milling is not critical. The milling may be performed by, a jet mill, a vibration mill, a ball mill, and the like. (Page 8 Lines 25-27)

At the time of invention it would have been obvious to a person of ordinary skill in the art to perform the process of Matyasi including pulverizing or milling the alpha alumina in view of EP '929. The suggestion or motivation would have been to regulate the particle size (Page 8 Lines 32-35).

With respect to claims 1-3, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matyasi US 4477427 in view of EP 0680929 as applied to claims 1-3, and 11-12 above, and further in view of JP 2000123635.

Matyasi and EP 0680929 do not expressly state the use of the alumina product.

JP '635 teaches that alumina may be combined with a polymer to form an electrically insulating and cooling material (Abstract).

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of Matyasi in view of EP '929 to include making an

alumina/polymer mixture in view of the teaching of JP '635. The suggestion or motivation for doing so would have been to provide an electrical insulating and cooling material (Abstract).

Claims 4-12 are rejected under 35 U.S.C. 102(b as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0680929.

EP '929 teaches a process of making alpha alumina. Alumina is mixed with boric acid aluminum chloride (Page 6 Lines 33-35) and calcium salt (Page 1 Line 1). The mixture is then calcined at 800-1200 degrees C (Page 7 Line 53). The alumina is milled, but the method of milling is not critical. The milling may be performed by, a jet mill, a vibration mill, a ball mill, and the like (Page 8 Lines 25-27).

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0680929.

With respect to claims 1-3, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0680929 as applied to claims 1-12 above, and further in view of JP 2000123635.

EP 0680929 does not expressly state the use of the alumina product.

JP '635 teaches that alumina may be combined with a polymer to form an electrically insulating and cooling material (Abstract).

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of EP '929 to include making an alumina/polymer mixture in view of the teaching of JP '635. The suggestion or motivation for doing so would have been to provide an electrical insulating and cooling material (Abstract).

Claims 1-2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0644279.

EP '279 teaches an alpha alumina product with an average grain diameter of 0.1 to 5 microns and a narrow grain size distribution (Abstract). The D to H ratio is 0.5 to 3 (wherein D is the maximum grain diameter in parallel with the hexagonal lattice plane of the alpha-alumina having a hexagonal closest lattice structure and H is the grain diameter perpendicular to the hexagonal lattice plane) (Abstract). The D90/D10 ratio is not more than 10 (Page 4 Line 50).

Claims 3, and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0644279 as applied to claims 1-2 above, and further in view of JP 2000123635.

EP 0644279 does not expressly state the use of the alumina product.

JP '635 teaches that alumina may be combined with a polymer to form an electrically insulating and cooling material (Abstract).

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of EP '279 to include making an alumina/polymer mixture in view of the teaching of JP '635. The suggestion or motivation for doing so would have been to provide an electrical insulating and cooling material (Abstract).

With respect to claim 3, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Bést*, 195 USPQ 430.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fiorito whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Fiorito
AU 1793

JF


Wayne Langel
Primary Patent Examiner
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